

REMARKS

The application has been reviewed in light of the Office Action dated January 13, 2005. Claims 1-23 are pending, with claims 1 and 13-16 being in independent form. By this Amendment, claim 23 has been amended to correct an informality.

Claim 23 was objected to as having informalities.

By this Amendment, claim 23 has been amended.

Claims 10 and 11 were rejected under 35 U.S.C. §112, fourth paragraph. The Office Action states that claim 10 is a dependent claim which fails to further limit independent claim 1 on which it depends and claim 11 depends on claim 10.

Applicants maintain that the feature described in claim 10 is not inherent to claim 1.

More specifically, contrary to the contention in the Office Action, lexical analysis is not the process of taking an input string and producing a sequence of tokens. Although lexical analyzing a data stream (claim 1) may include the conversion of the data stream to a stream of tokens (claim 10), lexical analysis is a process by which a collection of data (such as a data stream) is broken down into components, each component is associated or annotated with characteristics of the component, and the collection of components and associated characteristics are analyzed, such as by using rules, to arrive at one or more conclusions regarding the data stream. In the context of this application, the conclusion is typically whether the data stream includes viral or infected code.

Therefore, an assumption that a series of tokens must be generated by lexical analysis would be erroneous, and the rejection under 35 U.S.C. §112, fourth paragraph, should be withdrawn.

Claims 1, 7-9, 13-16, 22 and 23 were rejected under 35 U.S.C. §102(a) as purportedly

anticipated by Fermoye, "Firm offers free tool to fight 'love you' virus". Claims 2, 3, 17 and 18 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Fermoye in view of "Types of Viruses" ("the Frame Technology reference"). Claims 4-6 and 19-21 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Fermoye. Claim 12 was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Fermoye in view of the Description of the Related Art section of this application.

Applicants have carefully considered the Examiner's comments and the cited art, and respectfully submits that claims 1 and 13-16 are patentable over the cited art, for at least the following reasons.

This application relates to detection of polymorphic script language viruses by data driven lexical analysis. For example, claim 1 is directed to a method of detecting script language viruses in data streams comprising preparing language description data corresponding to at least one script language, preparing detection data for viral code corresponding to the script language virus, and lexically analyzing a data stream using the language description data and the detection data to detect the viral code.

Fermoye, as understood by Applicants, is directed to an e-mail management software (MailMarshal) with an integrated feature of scanning incoming messages for virus.

It is alleged in the Office Action that Fermoye, paragraph 8, which states as follows, discloses the claimed invention:

"With its ability to scan incoming messages, MailMarshal denies or quarantines messages based on a variety of criteria. It can control the movement of commercially sensitive data and proprietary information, give legal liability protection, block junk mail and eliminate inappropriate use", a company spokesperson report by monitoring and controlling key words (lexical scanning), users or system administrators can effectively remove the threat of malicious viruses, including the current "I Love You".

As evident from a reading of Fermoye, paragraph 8, the paragraph merely mentions

monitoring keywords through lexical scanning. Fermoyal does not disclose or suggest any details of any lexical analysis that should be performed.

For example, Applicants do not find disclosure or suggestion in Fermoyale of preparing language description data corresponding to a script language, as provided by the claimed invention. In addition, no teaching or suggestion is found in Fermoyale, of course, of lexically analyzing a data stream using the language description data, as provided by the claimed invention of the present application.

The Examiner apparently recognizes the deficiencies of Fermoyale and attempts to cure the deficiencies by referring to a document regarding MailMarshal printed from the Web (www.essential.co.uk/Products/Mailmarshal/emailabuse_antivirus.asp) ("the MailMarshal web document").

As an initial matter, it should be noted that it is well-established that anticipation under 35 U.S.C. §102 requires that each and every feature of the claim be disclosed in a single reference. Thus, the deficiencies of a references cannot be cured by combining the reference with a second reference (even if the second reference is related), under 35 U.S.C. §102.

In addition, the MailMarshal web document is not prior art to this application. This application was filed July 14, 2001, and claims the benefit of U.S. Provisional Application No. 60/218,313, filed July 14, 2000. The MailMarshal web document was printed on December 30, 2004 and indicates that it was copyrighted 2003. Applicants does not find any indication that the MailMarshal web document describes a software that was available in 2000. It should be noted that there are many versions of MailMarshal software, and it is unlikely that the web document describes a MailMarshal version more current than the version described in Fermoyale.

Therefore, Applicants maintain that the MailMarshal web document does not affect the

patentability of this application.

The Frame Technology reference, as understood by Applicants, is directed to anti-viral techniques for countering a computer virus that uses a decryptor. The Frame Technology reference discloses that hard-coded finite automata can be used, with the states of the finite automata reflecting the ways the decryptor can vary.

Applicants do not find teaching or suggestion in the Frame Technology reference, however, of preparing language description data corresponding to a script language, and lexically analyzing a data stream using the language description data, as provided by the claimed invention of the present application.

The Description of the Related Art section of this application mentions that it is known conventionally to use cyclical redundancy checks for detecting viral code.

However, Applicants do not find teaching or suggestion in the cited art of preparing language description data corresponding to a script language, and lexically analyzing a data stream using the language description data, as provided by the claimed invention of the present application.

Accordingly, for at least the above-stated reasons, Applicants respectfully submit that independent claims 1 and 13-16, and the claims depending therefrom, are patentable over the cited art.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Office is hereby authorized to charge any fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is

respectfully requested to call the undersigned attorney.

Allowance of this application is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul Teng", is written over a horizontal line.

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